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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,042	02/02/2006	Matthew P.J. Baker	GB030135	2382

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EXAMINER	
PEREZ, ANGELICA	
ART UNIT	PAPER NUMBER
2618	
MAIL DATE	DELIVERY MODE
06/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,042	BAKER ET AL.	
	Examiner	Art Unit	
	ANGELICA M. PEREZ	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *2/2/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 5-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mimura, Yukie (Mimura, US 6393005 B1) in view of Lomp et al. (Lomp, US 2002/0118729 A1).

Regarding claims 1, 12 and 18, Mimura teaches of a method of operating a communication system comprising a first station (BS) and a second station (MS) (figure 4, base station 201, mobile station 203-206), the first and second stations each having transceiving means (figure 5, see items 101-102 and 110-11 corresponding to transceiving means for the BS; item 113 that is capable of transmitting and receiving signals), the second station transmitting a first signal (DPCCH) to the first station, the power of the transmitted first signal not exceeding a predetermined maximum level (Pmax), where in response to the second station wishing to transmit any one of a set of possible additional signals simultaneously with the first signals (paragraph 15, lines 26-35), the transmit power of the first signal is scaled by an amount which takes into account the greater (or greatest) power requirement of all of the set of the possible additional signals to be transmitted subsequently (figure 6, column 14, lines 52-67and column 15, lines 25-67; where a desired power that includes the first signal and

additional signals is compared to a maximum power, if the desired power is greater, a power reduction is performed to comply with the maximum power requirement).

Mimura does not specifically teach where the power control is a closed-loop type where the BS based its decisions based on at least MS power requirements and measurements.

In related art concerning automatic power control system for code division multiple access (CDMA) communication system, Lomp teaches where the second station transmitting a first signal (DPCCH) to the first station, the power of the transmitted first signal not exceeding a predetermined maximum level (Pmax) (claim 1-3; where the SU transmits with an initial power level and later it is adjusted accordingly, in response to a BS power control , before transmission, to a level that does not exceeds a maximum level).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Lomp's SU sending the initial signal with Mimura's method, so that the BS can calculate the total power required, including additional signals according to a maximum threshold allowed.

Regarding claim 5, 13 and 19, Mimura and Lomp teach all the limitations of claims 1, 12 and 18, respectively. Mimura further teaches that the second station determines if the combined power requirement of the first signal and all of the set of possible additional signals exceeds the predetermined maximum level, and, if so, it scales the power requirement of the first signal (column 14, lines 48-55, claim 1).

Regarding claim 6, Mimura and Lomp teach all the limitations of claim 1. Mimura further teaches where the scaling results in a power reduction (column 14, lines 48-55, claim 1).

Regarding claims 7, 14 and 20 Mimura and Lomp teach all the limitations of claims 1, 12 and 19 , respectively. Mimura further teaches that in response to the scaling occurring coincidentally with a requirement to increase the power of the first signal, the scaling results in a smaller increase than the requirement (column 3, lines 6-21; where the power is scaled accordingly including when an increase for power increase is present, so that the max power is not exceeded).

Regarding claim 8, Mimura and Lomp teach all the limitations of claims 7. Mimura further teaches where the requirement to increase power is due to a regular power control process (column 3, lines 6-21).

Regarding claims 9, 15 and 21, Mimura and Lomp teach all the limitations of claims 1, 14 and 20, respectively. Lomp further teaches where the regular power control process is a closed loop process and in that the second station receives commands to change power from the first station (paragraph 7).

Regarding claims 10 and 16, Mimura and Lomp teach all the limitations of claims 1 and 15, respectively. Lomp further teaches where the requirement to increase power is due at least in part to a change in parameters or in format of a data signal transmitted from the second station (paragraph 19; e.g., changes in power parameters).

Regarding claim 11, 17 and 22, Mimura and Lomp teach all the limitations of claims 1, 12 and 18, respectively. Lomp further teaches where the first signal and the

possible additional signals are transmitted as spread spectrum signals (abstract and paragraph 17).

3. Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mimura in view of Lomp and further in view of (MPEP 2144.03).

Regarding claim 2, Mimura and Lump teach all the limitations of claims 1. characterized in that the set of the possible additional signals comprise a positive acknowledgement signal (ACK) and a negative acknowledgement signal (NACK), in that one of the ACK and NACK is transmitted at a mutually different power level than the other, and in that the scaling in the transmitted power of the first signal assumes that the higher power one of the ACK or NACK is to be transmitted, where the scaled power would be calculated considering the higher power required of additional signals to avoid surpassing the maximum power allowed.

However, Examiner takes "Official Notice" of the fact that an ACK or NACK signal are additional signals and where they are transmitted at different power levels.

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Mimura's and Lomp's combined power control method with the known fact that ACK and NACK signals are additional signals and where they are transmitted at different power levels, as examples of additional signals that can be sent along with a main signal.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mimura in view of Lomp and further in view of Schmutz, Thomas R. (Schmutz, WO/00/62442).

Regarding claim 3, Mimura and Lomp teach all the limitations of claims 1.

Although implicit, Mimura and Lomp do not explicitly teach where the first signal is transmitted in first frames or time slots and the additional signals are transmitted in second frames or time slots, wherein the boundaries between the first frames or time slots are not coincident with the boundaries between the second frames or time slots, characterized in that the transmit power of the first signal is scaled at the frame or time slot boundary immediately preceding the transmission of the additional signal.

In related art concerning dynamic overflow protection for finite digital word-length multi-carrier transmitter communications equipment, Schmutz teaches where the first signal is transmitted in first frames or time slots and the additional signals are transmitted in second frames or time slots, wherein the boundaries between the first frames or time slots are not coincident with the boundaries between the second frames or time slots, characterized in that the transmit power of the first signal is scaled at the frame or time slot boundary immediately preceding the transmission of the additional signal (page 5, lines 14-31; where the calculated total power is determined based on the according to the requested power and additional signals, and where the power is allocated before the signals, including the additional signals are sent, where an initial signal is sent prior; thus, two different frames or slots, where the additional signal/s frame/slot is posterior to the initial signal).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Schmutz's more explicit time reference with Mimura's and Lomp's power control method to indicate the sequence of events in the method.

Regarding claim 4, Mimura and Lomp teach all the limitations of claim 1. Schmutz further teaches where by the second station transmitting the first signals substantially continuously in successive first frames or time slots, by the first station transmitting to the second station a data packet requiring a response consisting of at least a selected one of the set of possible additional signals, in that the first station requires the response to be transmitted in a second frame or time slot whose boundaries are different from the boundaries of the first frames or time slots, and in that the power level of at least the first signal is scaled at the boundary of the first frame or time slot immediately preceding the occurrence of the second time slot (page 5, lines 14-31; where the calculated total power is determined based on the according to the requested power and additional signals, and where the power is allocated before the signals, including the additional signals are sent, where an initial signal is sent prior; thus, two different frames or slots, where the additional signal/s frame/slot is posterior to the initial signal).

12. (original) A communication system comprising a first station (BS) and a second station (MS), the first station and second stations having transceiving means

(12, 38), the second station having power control means (34) for controlling the transmitted power level of a first signal (DPCCH) to be transmitted to the first station, wherein the power control means is adapted, in response to determining that the second station wishes to transmit any one of a set of possible additional signals simultaneously with the first signals, to scale the transmit power of the first signal by an amount which takes into account the greater (or greatest) power requirement of all of the set of the possible additional signals to be transmitted subsequently. 13.(original) A system as claimed in claim 12, characterized by the second station having power scaling means (36) which is adapted, in response to the power control means determining that the combined power requirement of the first signal and the set of possible additional signals exceeding the predetermined maximum level, to scale the power requirements of the first signal. 14. (currently amended) A system as claimed in claim 12 or 13, characterized in that the power scaling means is adapted, in response to the scaling occurring coincidentally with a requirement to increase the power of the first signal, to effect a smaller increase in the scaling than the requirement. 15. (original) A system as claimed in claim 14, characterized by power control means in the first station for effecting a closed loop power control process with the second station and by means in the first station for generating commands instructing the second station to change power. 16. (original) A system as claimed "in claim 15, characterized in that power control means in the first station is adapted to generate a command to increase power due at least in part to a change in parameters or in format of a data signal transmitted from the second station. 17.(currently amended) A system as claimed in any one of

olaimo 12 to 16, claim 12 characterized in that the transceiving means are spread spectrum transceiving means. 18. (original) A second station (MS) for use in a communication system comprising a first station and a second station, the second station including transceiving means (38) for communication with the first station, and power control means (34) for controlling the transmitted power level of a first signal (DPCCH) to be transmitted to the first station, wherein the power control means is adapted, in response to determining that the second station wishes to transmit any one of a set of possible additional signals (ACK or NACK) simultaneously with the first signals, to scale the transmit power of the first signal by an amount which takes into account the greater (or greatest) power requirement of all of the set of the possible additional signals to be transmitted subsequently. 19. (original) A second station as claimed in claim 18, characterized by power scaling means (36) which is adapted, in response to the power control means determining that the combined power requirement of the first signal and the set of possible additional signals exceeding the predetermined maximum level, to scale the power requirements of the first signal. 20. (original) A second station as claimed in claim 19, characterized in that the power scaling means is adapted, in response to the scaling occurring coincidentally with a requirement to increase the power of the first signal, to effect a smaller increase in the scaling than the requirement. 21. (original) A second station as claimed in claim 20, characterized in that power control means in the second station is responsive to commands generated by the first station for effecting a change in power. 22. (original) A second station as claimed in

any one of claims 18 or 21 claim 18, characterized in that the transceiving means is a spread spectrum transceiving means.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 7:00 a.m. - 3:30 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached at (571) 272-7503. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

/A. M. P./

Examiner, Art Unit 2618

/Duc Nguyen/

Supervisory Patent Examiner, Art Unit 2618